PTC/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid QMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of Sheet

. C	omplete if Known	
Application Number	10/660/976	
Filing Date	09/11/2003	
First Named Inventor	Franco Vitaliano	
Group Art Unit	1631	
Examiner Name	Russell S. Negin	
Attorney Docket Number		

				U.S. PATENT DOCL	JMENTS	
Examiner Initials	Cite No.1	U.S. Paten Number	t Document Kind Code ² (# known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
RSN		7,112,330		Buonamassa, et al	09/26/2006	·
ī		7,105,303		Raiston, et al	09/12/2006	·
		7,094,409		Bachmann, et al	08/22/2006	
		RE39,229		Choo, et al	08/08/2006	
		7,060,291		Meers, et al	06/13/2006	
	·	7,063,860		Chancellor,et al	06/20/2006	·
		7,048,949		Sligar, et al	05/23/2006	
		7,112,337		Huang, et al	09/26/2006	
		7,108,863		Zalipsky, et al	09/19/2006	
		7,101,570		Hope, et al	09/05/2006	
		7,101,532		Aikawa, et al	09/05/2008	
		7,037,520		Smyth Templeton	05/02/2006	
		7,033,834		Valerio, et al	04/25/2006	
		7,108,915		Adams, et al	09/19/2006	
		7,113,967		Cleve, et al.	09/26/2006	
		7,113,598		Flusberg, et al.	09/26/2006	
W		7,019,875		Pittman, et al.	03/28/2006	
<u> </u>						
	1					

				FORE	GN PATENT DOCUMENT	rs		
			oreign Patent Do	cument	Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant	Π
Examiner Initials	Cite No.1	Office ³	Number ⁴	Kind Code ^s (# known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	76
								<u> </u>
								\mathbf{I}_{-}
		1 1						

Examiner		Date	
Signature	. [0	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Please	type a	plus	sign	(+)	inside	this	box	→	+
--------	--------	------	------	-----	--------	------	-----	----------	---

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of 2

C	omplete if Known	
Application Number	10/660/976	
Filing Date	09/11/2003	
First Named Inventor	Franco Vitaliano	
Group Art Unit	1631	
Examiner Name	Russell S. Negin	
Attorney Docket Number		

				U.S. PATENT DOCU	MENTS	
Examiner Initials	Cite No.1	U.S. Paten Number	Kind Code ² (# known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
RSN		6,819,474		Beil, et al	11/16/2004	
		6,678,450		Franson	01/13/2004	
		5,940,193		Hotaling, et al.	08/17/1999	
	_	5,838,436		Hotaling, et at.	11/17/1998	
		7,118,740		Russell, et al.	10/10/2006	
W		7,118,738		Schlom, et al	10/10/2006	
					<u> </u>	

			FORE	GN PATENT DOCUMENT	rs		
 	F	oreign Patent Doo		Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant	\Box
Cite No.1	Office ³	Number ⁴	Kind Code ⁸ (if known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T ⁶
		· · · · · · · · · · · · · · · · · · ·					
		·					
							ـــــ
					·		↓_
							↓_
							╄
							↓_

Examiner	Date	
Signature	Considered	



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box 🛶	+
---	---

PTO/SB/08B (10-96)

Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO					Complete If Known			
Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) Sheet 3 of 5		Application Number	10/660/976					
INF	ORMAT	ION I	DISCLOSU	IRE	Filing Date	09/11/2003		
STATEMENT BY APPLICAN	NT	First Named Inventor	Franco Vitaliano					
		Group Art Unit	1631					
	(use as n	na <u>ny</u> shee	ts as necessary)		Examiner Name	Russell S. Negin		
Sheet	3	of	5		Attorney Docket Number			

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ²
RSN		W. ALT,ET AL; A NEUTRAL ATOM QUANTUM REGISTER; INSTITUT FÜR ANGEWANDTE PHYSIK DER UNIVERSITÄT BONN, 2004	
RSN		L. F. WEI, AND F. NORI;COHERENTLY MANIPULATING TWO-QUBIT QUANTUM INFORMATION USING A PAIR OF SIMULTANEOUS LASER PULSES; EUROPHYS. LETT., 65 (1), PP. 1-6 (2004) DOI: 10.1209/EPL/I2003-10053-Y, EUROPHYSICS LETTERS	
RSN		CHRISTIAN F. ROOS, ET AL; CONTROL AND MEASUREMENT OF THREE-QUBIT ENTANGLED STATES; 4 JUNE 2004 VOL 304 SCIENCE	
RSN		H. C. NAGERL, ET AL; LASER ADDRESSING OF INDIVIDUAL IONS IN A LINEAR ION TRAP; PHYSICAL REVIEW A VOLUME 60, NUMBER 1 JULY 1999	
RSN		SAMUEL L. BRAUNSTEIN AND JOHN A. SMOLIN (AUGUST 28, 2006); PERFECT QUANTUM ERROR CORRECTION CODING IN 24 LASER PULSES;ARXIV:QUANT-PH/9604036 V2 22 OCT 1996	
RSN		DEBABRATA GOSWAMI; QUANTUM COMPUTATION WITH ULTRAFAST LASER PULSE SHAPING; RESONANCE, JUNE 2005	
RSN		J. J. GARCIA-RIPOLL, ET AL; SPEED OPTIMIZED TWO-QUBIT GATES WITH LASER COHERENT CONTROL TECHNIQUES FOR ION TRAP QUANTUM COMPUTING; VOLUME 91, NUMBER 15, PHYSICAL REVIEW LETTERS, 10 OCTOBER 2003	
RSN		W J MUNRO, K NEMOTO AND T P SPILLER; WEAK NONLINEARITIES: A NEW ROUTE TO OPTICAL QUANTUM COMPUTATION; NEW JOURNAL OF PHYSICS 7 (2005) 137, 27 MAY 2005	
RSN		ALIVISATOS, AP; SEMICONDUCTOR CLUSTERS, NANOCRYSTALS, AND QUANTUM DOTS; SCIENCE, PP. 933-937, 1996	
RSN		ARTEMYEV, M. V. WOGGON, QUANTUM DOTS IN PHOTONIC DOTS, APPLIED PHYSICS LETTERS, 2000	

Examiner		Date	
Signature	·	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Please	type a	plus	slgn	(+)	Inside	this	box	→	4	
--------	--------	------	------	-----	--------	------	-----	----------	---	--

PTO/SB/08B (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitu	ite for form 1449B/PTC)		Complete if Known			
			'	Application Number	10/660/976		
INF	ORMATION	1 C	ISCLOSURE	Filing Date	09/11/2003		
STA	TEMENT I	RY	APPLICANT	First Named Inventor	Franco Vitaliano		
OTATEMENT BY ALL EIGAN				Group Art Unit	1631		
(use as many sheets as necessary)				Examiner Name	Russell S. Negin		
Sheet	4	of	5	Attorney Docket Number			

OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS									
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), votume-issue number(s), publisher, city and/or country where published.	T2						
RSN		BROWN, K.R., D. A. LIDAR, AND K. B. WHALEY, QUANTUM COMPUTING WITH QUANTUM DOTS ON QUANTUM LINEAR SUPPORTS, PHYSICAL REVIEW A, VOLUME 65, 2001							
RSN		DEBRAY, P. ET AL. BALLISTIC ELECTRON TRANSPORT IN STUBBED QUANTUM WAVEGUIDES: EXPERIMENT AND THEORY. PHYS. REV. B 61, 10950±10958 (2000).							
RSN		SANTORI, ET AL; INDISTINGUISHABLE PHOTONS FROM A SINGLE-PHOTON DEVICE; LETTERS TO NATURE, 2002; YAMAMOTO QUANTUM ENTANGLEMENT PROJECT, ICORP, JST, E. L. GINZTON LABORATORY, STANFORD UNIVERSITY).							
RSN		HARNEIT, W., FULLERENE-BASED ELECTRON-SPIN QUANTUM COMPUTER, PHYSICAL REVIEW A, VOLUME 65, 032322, RECEIVED 11 OCTOBER 2001; PUBLISHED 27 FEBRUARY 2002							
RSN		REPORT OF THE NSF WORKSHOP, QUANTUM INFORMATION SCIENCE, AN EMERGING FIELD OF INTERDISCIPLINARY RESEARCH AND EDUCATION IN SCIENCE AND ENGINEERING, OCTOBER 28-29, 1999 ARLINGTON, VIRGINIA							
RSN		MICHLER,P., KIRAZ, A., A QUANTUM DOT SINGLE-PHOTON TURNSTILE DEVICE, SCIENCE, DEC. 2000							
RSN		KNILL, LAFLAMME, MILBURN, EFFICIENT LINEAR OPTICS QUANTUM COMPUTATION, NATURE 409, 46, 2001)							
RSN		MICHLER, P., A., ET AL; QUANTUM CORRELATION AMONG PHOTONS FROM A SINGLE QUANTUM DOT AT ROOM TEMPERATURE, NATURE, AUGUST 2000							
RSN		RALPH, T.C, ET AL; SIMPLE SCHEME FOR EFFICIENT LINEAR OPTICS QUANTUM GATES, PHYSICAL REVIEW A, VOLUME 65, DECEMBER 2001							
RSN		BRUN, T., WANG. H., COUPLING NANOCRYSTALS TO A HIGH-Q SILICA MICROSPHERE: ENTANGLEMENT IN QUANTUM DOTS VIA PHOTON EXCHANGE, ARXIV:QUANT-PH/9906025							
RSN		LIANG, ET AL: FABRY-PEROT INTERFERENCE IN A NANOTUBE ELECTRON WAVEGUIDE, LETTER TO NATURE, NATURE, VOL. 411, 7 JUNE 2001							

1	Examiner			Date	1
-	Signature		,	Considered	l

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Diana		_	-1				ملطه	.	_	
Please	typu	a	pius	ยเป็น	(+)	เกรเดย	uus	DOX	→	+

PTO/S8/08B (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitu	te for form 1449B/PTC)		Complete if Known			
				Application Number	10/660/976		
INFO	DRMATION	1 D	ISCLOSURE	Filing Date	09/11/2003		
STA	TEMENT I	37	APPLICANT	First Named Inventor	Franco Vitaliano		
0.7.		•		Group Art Unit	1631		
	(use as many s	heet	s as necessary)	Examiner Name	Russell S. Negin		
Sheet	5	of	5	Attorney Docket Number			

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
RSN		MEKIS, A., J. ET AL;RAY CHAOS AND Q-SPOILING IN LASING DROPLETS, PHYS. REV. LETT. 75, 2682 (1995)					
RSN		NOCKEL, J. U., ET AL; Q-SPOILING AND DIRECTIONALITY IN DEFORMED RING CAVITIES, OPTICS LETTERS 19, 1693 (1994)					
RSN		NOCKEL, JENS., A. DOUGLAS STONE, CHAOTIC LIGHT: A THEORY OF ASYMMETRIC RESONANT CAVITIES ARXIV:PHYSICS/0203063 V1 21 (MAR 2002)					
							
-							
	<u> </u>						

Examiner Signature	/Russell S. Negin/	Date Conside	ored 02/07/2007

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.



